Lab Assignment

Cybersecurity Professional Program

Introduction to Python for Security

File System & Error Handling

PY-04-L1

Try & Except Practice

Lab Objective

Understand error handling and implementation of solutions for expected system errors.

Lab Mission

Use ***try*** and ***except*** to handle code errors.

Lab Duration

10–20 minutes

Requirements

- Basic knowledge of Python
- Basic knowledge of error handling

Resources

- Environment & Tools
    - Windows, Linux, macOS
        - PyCharm
        - Python 3

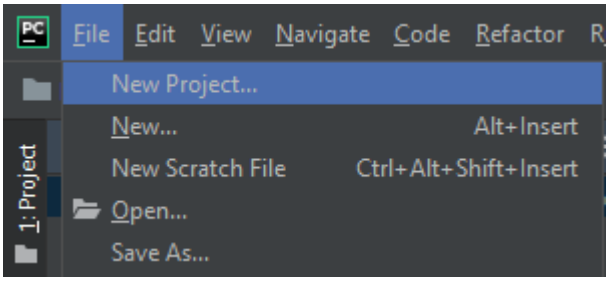
Textbook References

- Chapter 4: File System and Error Handling
    - Section 1: Error Handling

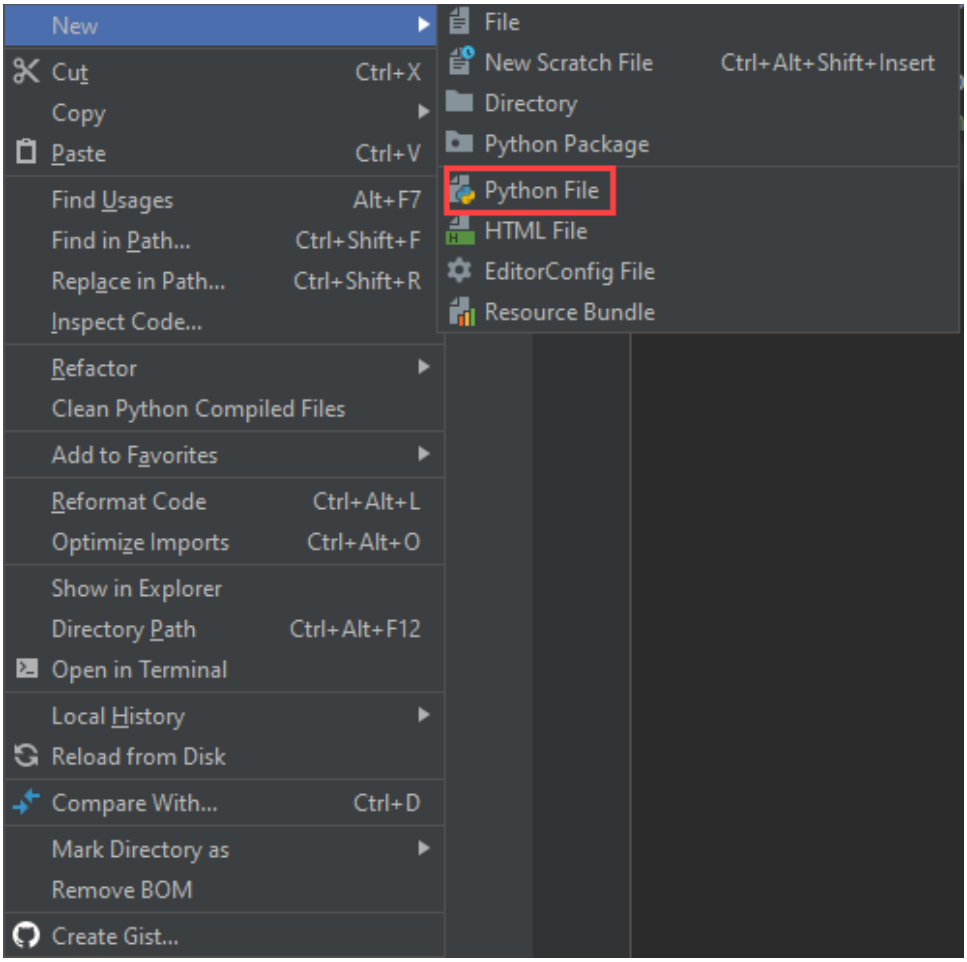
Lab Task: Division by Zero

Create a program that receives a number from the user and divides it by zero. As this operation is invalid, the program must handle the error accordingly.

1. Open PyCharm, click **File** at the top left, and select ***New Project***.



2. Create a new Python file in PyCharm by right-clicking the project you created and selecting **New** > ***Python File***.



3 Request a number from the user and assign it to a variable.

```
num1 = int(input("Please enter a number: "))
```

4 Create a new variable with the value *0*.

```
num1 = int(input("Please enter a number: "))
num2 = 0
```

5 Divide the first variable by the second variable and print the result.
As these operations need to be handled appropriately, begin the code with a ***try*** error-handling block.

```
try:
    num1 = int(input("Please enter a number: "))
    num2 = 0
    div = num1/num2
    print(div)
```

6 Write an ***except*** block to catch the ***ZeroDivisionError*** exception.

```
try:
    num1 = int(input("Please enter a number: "))
    num2 = 0
    div = num1/num2
    print(div)
except ZeroDivisionError:
    print("Can't calculate it")
```

7 Create another exception using the built-in ***TypeError***. Run the code and insert a word instead of a number. Note how the ***ZeroDivisionError*** exception is not executed. Why?

```
try:
    num1 = int(input("Please enter a number: "))
    num2 = 0
    div = num1/num2
    print(div)
except ZeroDivisionError:
    print("Can’t calculate it")
except ValueError:
    print("Something went wrong!")
```